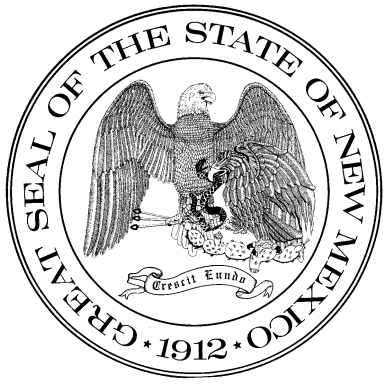
RADIOACTIVE AND HAZARDOUS MATERIALS COMMITTEE



REPORT
to the
FIFTY-FIRST LEGISLATURE

December 2013
Legislative Council Service

SUMMARY

Radioactive and Hazardous Materials Committee Summary

The Radioactive and Hazardous Materials Committee (RHMC) is a statutory committee created in 1979 pursuant to the provisions of the Radioactive and Hazardous Materials Act. Within the purview of the RHMC is to review and monitor activities related to radioactive or hazardous waste, the handling of waste being transported to the Waste Isolation Pilot Plant (WIPP), remediation efforts at contaminated sites, compliance with environmental statutes and standards, uranium mine and mill tailings disposal and other issues related to ground water protection and hazardous chemicals.

In keeping with its statutory mandate, in 2013, the RHMC heard a wide variety of testimony related to its responsibility to keep an eye on the state's efforts to dispose of hazardous waste safely, to deal with fuel spills, to clean up hazardous waste at its sites and to find new ways to protect the environment and ensure safe water quality.

Specifically, the RHMC heard testimony and engaged in discussions on the following major topics:

- cleanup of Los Alamos National Laboratory (LANL);
- WIPP permit modification requests and details of WIPP's hazardous waste permit and the regulatory function of the state's Department of Environment;
- details on WIPP's mission, the possibility of an interim storage site outside of WIPP, the unused space and potential for more storage at WIPP and U.S. Representative Steve Pearce's efforts to pass legislation that would allow WIPP to accept all government-owned transuranic (TRU) waste;
- the framework agreement between the state and the federal Department of Energy to receive 3,706 cubic meters of surface TRU waste by June 2014 is on target;
- dealing with the Kirtland Air Force Base fuel spill;
- the science, technology, engineering and mathematics programs at LANL to help increase the local talent pool and efforts to educate teachers in math and science more fully;
- URENCO USA update;
- the state of fiber communication, which has become more necessary due to a significant increase in global data traffic;
- the status of the Carlsbad brine well and a review of the tasks being accomplished at that site, which include site monitoring and an early warning system, geophysical characterization and a feasibility study to determine next steps;
- a product stewardship program, which is a product-centered approach to environmental protection that calls on the participants in a product's life cycle to share responsibility for reducing its environmental impact, and a pilot program for mattresses to test the waters in New Mexico; and
- water treatment innovations by a team at New Mexico State University that is a low-cost method of analyzing water for uranium contamination and, with the proper funding, could be instituted immediately where needed, such as on the Navajo Nation.

The RHMC did not endorse any legislation for the upcoming session.

WORK PLAN AND MEETING

SCHEDULE

2013 APPROVED
WORK PLAN AND MEETING SCHEDULE
for the
RADIOACTIVE AND HAZARDOUS MATERIALS COMMITTEE

Members

Sen. Peter Wirth, Chair
Rep. Eliseo Lee Alcon, Vice Chair
Rep. Thomas A. Anderson
Rep. Cathrynn N. Brown
Sen. Carlos R. Cisneros
Rep. David M. Gallegos
Rep. Stephanie Garcia Richard
Sen. Gay G. Kernan
Sen. Carroll H. Leavell
Sen. Richard C. Martinez
Sen. John Pinto
Rep. Jim R. Trujillo

Advisory Members

Rep. Donald E. Bratton
Sen. William F. Burt
Rep. Brian F. Egolf, Jr.
Rep. William "Bill" J. Gray
Sen. Ron Griggs
Sen. Stuart Ingle
Sen. Daniel A. Ivey-Soto
Rep. Emily Kane
Sen. Michael Padilla
Sen. William H. Payne
Sen. Nancy Rodriguez
Rep. Nick L. Salazar
Sen. Clemente Sanchez
Sen. Lisa A. Torraco

Work Plan

The Radioactive and Hazardous Materials Committee was created in 1979 pursuant to the provisions of the Radioactive and Hazardous Materials Act. During the 2013 interim, the committee will review:

1. federal nuclear energy initiatives;

2. Waste Isolation Pilot Plant (WIPP) operations and management;

3. U.S. Department of Energy "energy park" initiatives for Los Alamos National Laboratory (LANL), WIPP and Sandia National Laboratories;

4. Department of Environment programs and operations;

5. LANL progress on uranium legacy site cleanup and shipment of waste to WIPP;

6. renewable energy initiatives; and

7. the consequences of waste streams to landfills, including accidental breaking of compact fluorescent lights in residences and electronic wastes that have heavy metal components.

Radioactive and Hazardous Materials Committee
2013 Approved Meeting Schedule

Date	Location
June 12	Santa Fe
July 17-18*	Los Alamos
October 7-8	Carlsbad
November 12-13	Santa Fe

*Joint meeting with the Science, Technology and Telecommunications Committee.

AGENDAS

TENTATIVE AGENDA
for the
FIRST MEETING
of the
RADIOACTIVE AND HAZARDOUS MATERIALS COMMITTEE

June 12, 2013
Room 311, State Capitol

Wednesday, June 12

10:00 a.m.		**Call to Order** —Senator Peter Wirth, Chair
10:05 a.m.	(1)	**Interim Committee Protocols** —Raúl E. Burciaga, Director, Legislative Council Service
10:30 a.m.	(2)	**Department of Environment** —Ryan Flynn, Secretary-Designate
11:30 a.m.	(3)	**2013 Interim Work Plan and Meeting Schedule**
12:00 noon		**Adjourn**

Revised: July 11, 2013

TENTATIVE AGENDA
for the
SECOND MEETING
of the
RADIOACTIVE AND HAZARDOUS MATERIALS COMMITTEE
and
SCIENCE, TECHNOLOGY AND TELECOMMUNICATIONS COMMITTEE

July 17-18, 2013
Fuller Lodge, 2132 Central Avenue
Los Alamos

Wednesday, July 17

10:00 a.m.		**Call to Order and Introductions** —Senator Peter Wirth, Chair, Radioactive and Hazardous Materials Committee (RHMC) —Representative Carl Trujillo, Chair, Science, Technology and Telecommunications Committee (STTC)
10:10 a.m.	(1)	**Welcome and Los Alamos National Laboratory (LANL) Overview** —Richard Marquez, Executive Director, LANL
11:00 a.m.	(2)	**Laboratory Science Overview** —Duncan McBranch, Chief Technology Officer, LANL
12:00 noon		**Lunch**
1:00 p.m.	(3)	**LANL Community Program Overview** —Kurt Steinhaus, Director, Community Programs Office, LANL
2:00 p.m.	(4)	**LANL Cleanup Status** —Jeff Mousseau, Associate Director for Environment Programs, LANL —Pete Maggiore, Assistant Manager, Environment Projects Office, LANL —Ryan Flynn, Secretary-Designate of Environment —DeAnza Sapien, Executive Director, Regional Coalition of LANL Communities
3:30 p.m.	(5)	**Regional Economic Development Initiative (REDI Net)** —Laura Gonzales, Northern New Mexico Coordinator, REDI Net
4:30 p.m.		**Adjourn**

Thursday, July 18

For security reasons, LANL will be providing an invitation-only tour for RHMC and STTC legislators and legislative staff. No committee or legislative business will take place during the tour.

Revised: October 7, 2013

TENTATIVE AGENDA
for the
THIRD MEETING
of the
RADIOACTIVE AND HAZARDOUS MATERIALS COMMITTEE

October 7-8, 2013
Pecos River Village Conference Center
711 Muscatel Ave.
Carlsbad

Monday, October 7

12:00 noon **Tour of the Waste Isolation Pilot Plant (WIPP) for Interested Committee Members and Staff**
CANCELED

Tuesday, October 8

9:00 a.m. **Call to Order and Introductions**
—Senator Peter Wirth, Chair

9:10 a.m. (1) **LES, URENCO Update**
—Clint Williamson, Chief Executive Officer, LES

10:00 a.m. (2) **WIPP Status Report**
—Tom Blaine, Director, Environmental Health Division, Department of Environment

11:30 a.m. **Lunch**

12:30 p.m. (3) **WIPP Mission**
—John Heaton
—Todd Willens, Chief of Staff, Office of Congressman Stevan Pearce
—Don Hancock, Southwest Research and Information Center

2:30 p.m. **Public Comment**

3:00 p.m. (4) **Carlsbad Brine Well Update**
—Jim Griswold, Senior Hydrologist, Energy, Minerals and Natural Resources Department

4:00 p.m. **Adjourn**

Revised: October 29, 2013

TENTATIVE AGENDA
for the
FOURTH MEETING
of the
RADIOACTIVE AND HAZARDOUS MATERIALS COMMITTEE

November 12, 2013
Room 311, State Capitol
Santa Fe

Tuesday, November 12

10:00 a.m. **Call to Order and Introductions**
—Senator Peter Wirth, Chair

10:10 a.m. (1) **Product Stewardship (House Memorial 56 — 2013)**
—Jill Turner, Pollution Prevention Program Manager, Department of Environment

11:30 a.m. (2) **Innovations in Water Treatment**
—Jaime Geronimo Vela, Doctoral Student, New Mexico State University (NMSU)
—Dr. Antonio Lara, Professor of Chemistry, NMSU

12:30 p.m. **Lunch**

1:30 p.m. (3) **WIPP Status Update**
—Joe Franco, Carlsbad Field Office Manager, U.S. Department of Energy

3:00 p.m. **Public Comment**

4:00 p.m. **Adjourn**

MINUTES

MINUTES
of the
FIRST MEETING
of the
RADIOACTIVE AND HAZARDOUS MATERIALS COMMITTEE

June 12, 2013
Room 311, State Capitol
Santa Fe

The first meeting of the Radioactive and Hazardous Materials Committee was called to order by Senator Peter Wirth, chair, on June 12, 2013 at 10:04 a.m. in Room 311 of the State Capitol.

Present
Sen. Peter Wirth, Chair
Rep. Eliseo Lee Alcon, Vice Chair
Rep. Thomas A. Anderson
Rep. David M. Gallegos
Rep. Stephanie Garcia Richard
Sen. Richard C. Martinez
Rep. Jim R. Trujillo

Absent
Rep. Cathrynn N. Brown
Sen. Carlos R. Cisneros
Sen. Gay G. Kernan
Sen. Carroll H. Leavell
Sen. John Pinto

Advisory Members
Rep. Donald E. Bratton
Sen. Nancy Rodriguez
Rep. Nick L. Salazar

Sen. William F. Burt
Rep. Brian F. Egolf, Jr.
Rep. William "Bill" J. Gray
Sen. Ron Griggs
Sen. Stuart Ingle
Sen. Daniel A. Ivey-Soto
Rep. Emily Kane
Sen. Michael Padilla
Sen. William H. Payne
Sen. Clemente Sanchez
Sen. Lisa A. Torraco

Staff
Gordon Meeks, Legislative Council Service (LCS)
Cassandra Jones, LCS

Guests
The guest list is in the meeting file.

Handouts
Handouts and written testimony are in the meeting file.

Wednesday, June 12

Members of the committee introduced themselves. Senator Wirth noted that due to meeting conflicts, a number of members would not be present.

Interim Committee Procedures

Raúl E. Burciaga, director of the LCS, provided the committee with an overview of interim committee protocols. He referred the committee to a tentative interim committee calendar created by the LCS.

Mr. Burciaga told the committee that:

- the committee is bound by a "blocking provision", which states that no action shall be taken by the committee if a majority of the total membership from either house rejects the action;
- advisory members are nonvoting members of the committee;
- some action can be done by consensus, but formal action, such as endorsing legislation or issuing a letter reflecting the committee's opinion, should be done upon a motion and a vote of the voting members with a quorum present;
- votes can be done by voice, a show of hands or by the chair asking whether there is objection to the motion;
- a quorum consists of a majority of the voting members of the committee;
- a committee can meet under certain conditions without a quorum present and take testimony, but it cannot take any formal action; and
- committees must meet in the State Capitol after September 30, unless specifically approved to do otherwise by the New Mexico Legislative Council.

Department of Environment

Ryan Flynn, secretary-designate of the Department of Environment (NMED), introduced staff present. He told the committee that, in the days before the meeting, his staff responded to a water shortage in Magdalena. He reported that progress is being made and that one well is online with another expected to be online very soon. He told the committee that the NMED is working with at-risk communities to prevent the same issue occurring somewhere else.

Secretary-Designate Flynn gave the committee an update on the status of the Los Alamos National Laboratory (LANL) cleanup, the Waste Isolation Pilot Plant (WIPP) permit and modification requests and the Kirtland Air Force Base (KAFB) fuel spill. He told the committee that the 2011 Las Conchas wildfire burned more than 150,000 acres and threatened LANL. The NMED is tasked with working with the federal government to prioritize and clean up several sites, including the disposal of above-ground transuranic legacy waste on LANL property and to protect the regional water resources. The consent order agreed upon by LANL and the NMED contained a completion date of December 2015 that is unlikely to be met, and LANL wishes to renegotiate the consent order schedule. The Buckman Direct Diversion Project is being closely monitored in order to prevent the contamination of drinking water.

Secretary-Designate Flynn told the committee that the current WIPP permit became effective on December 30, 2010. Since the permit became effective, a few modifications have been made and others are pending.

The KAFB fuel facility spill resulted when the fuel storage and distribution system, which was constructed around 1952, began to leak, most likely from the ancillary piping. Aviation gas and jet fuel were released. The estimated amount of fuel released ranges from 8 million to 24 million gallons. The dissolved-phase ground water contamination plume is approximately 6,900 feet long and 1,000 feet wide. The floating product is estimated to be one-half mile long and 1,000 feet wide. The northern margin of the plume was determined by three well clusters installed in October 2012. The vertical extent of the plume is not yet defined. Interim measures for containing the contamination include a soil vapor extraction unit currently in operation. Secretary-Designate Flynn told the committee that, in the future, the NMED plans to continue working on interim measures, to evaluate and implement additional interim measures if necessary and appropriate, to further characterize the saturation zone and to restore the ground water as quickly as possible.

Members of the committee discussed and asked questions about:

- the restoration of wells;
- the boundaries of the plume;
- what happens if the plume reaches production wells;
- interim measures to reduce the impact of the spill;
- the soil vapor extraction unit and how it works; and
- vulnerable community assessments.

2013 Interim Work Plan and Meeting Schedule

Senator Wirth referred the committee to the statutory creation of the committee. He explained that the proposed work plan includes the committee's statutory duties and is a minor modification of the 2012 work plan. He noted that the committee has a joint meeting with the Science, Technology and Telecommunication Committee scheduled for July. He requested the committee's input regarding topics on the work plan as well as meeting days and travel locations. Members of the committee discussed and decided to proceed with the proposed work plan as written.

Adjournment

There being no further business before the committee, the first meeting of the Radioactive and Hazardous Materials Committee adjourned at 11:57 a.m.

MINUTES
of the
JOINT MEETING
of the
RADIOACTIVE AND HAZARDOUS MATERIALS COMMITTEE
and
SCIENCE, TECHNOLOGY AND TELECOMMUNICATIONS COMMITTEE

July 17-18, 2013
Fuller Lodge, Los Alamos

The joint meeting of the Radioactive and Hazardous Materials Committee (RHMC) and the Science, Technology and Telecommunications Committee (STTC) was called to order by Senator Peter Wirth, chair of the RHMC, on Wednesday, July 17, at the Fuller Lodge in Los Alamos.

RHMC Attendance

Present	**Absent**
Sen. Peter Wirth, Chair	Rep. Cathrynn N. Brown
Rep. Eliseo Lee Alcon, Vice Chair (7/17)	Sen. Carlos R. Cisneros
Rep. Thomas A. Anderson	Sen. Gay G. Kernan
Rep. David M. Gallegos	Sen. Carroll H. Leavell
Rep. Stephanie Garcia Richard	Sen. John Pinto
Sen. Richard C. Martinez	
Rep. Jim R. Trujillo	

Advisory Members	
Sen. William F. Burt	Rep. Donald E. Bratton
Sen. Ron Griggs	Rep. Brian F. Egolf, Jr.
Sen. Nancy Rodriguez (7/18)	Rep. William "Bill" J. Gray
Rep. Nick L. Salazar (7/17)	Sen. Stuart Ingle
	Sen. Daniel A. Ivey-Soto
	Rep. Emily Kane
	Sen. Michael Padilla
	Sen. William H. Payne
	Sen. Clemente Sanchez
	Sen. Lisa A. Torraco

Guest Legislator
Rep. Tim D. Lewis

(Attendance dates are noted for members not present for the entire meeting. STTC attendance is noted on that committee's minutes.)

Staff
Gordon Meeks, Legislative Council Service (LCS)
Renée Gregorio, LCS
Cassandra Jones, LCS

Wednesday, July 17

Welcome and Los Alamos National Laboratory (LANL) Overview

Senator Wirth handed the gavel over to Representative Garcia Richard after member introductions, and she and Representative Carl Trujillo, chair of the STTC, shared the lead. Representative Trujillo introduced Geoff Rogers, chair of the Los Alamos County Council, who was joined by other councilors in attendance. Mr. Rogers welcomed the committees to Los Alamos, stating that some of the greatest minds have gathered here in the spirit of honest debate and stressing that issues that the committees would be discussing impact the community greatly, especially the collaboration among the federal, state and local governments on cleanup issues at LANL.

Richard Marquez, executive director, LANL, invited the committees to LANL's seventieth anniversary activities in the following week. He mentioned what a fascinating place that LANL is, attracting talented scientists, engineers and safety and procurement personnel to work at the lab. He spoke of the institution's significant history and rich interaction and synergy with northern New Mexico. He added that as a large employer in the northern part of the state, LANL management is attuned to its responsibility of corporate citizenship and being a good neighbor.

Mr. Marquez highlighted the work of his LANL colleagues by saying that Duncan McBranch, as chief technology officer, will make a presentation on the need for collaboration among private sector and research institutions in the current challenging fiscal climate. He spoke of Kurt Steinhaus as earnest and sincere, with a passion for education. He also alluded to Jeff Mousseau's work in environmental management, which includes stellar performance metrics and a strong safety record. He then discussed the importance of stability, especially in regard to attracting and retaining LANL's top-notch work force during this time of economic downturn. He offered that legislative support really assists LANL in its mission. He specified that in the last two fiscal years, there has been a decline in revenue from $2.5 billion to $2.1 billion and that the impact has largely fallen on northern New Mexico. LANL had to cut 1,300 positions, and procurements were cut from $1 billion to $600 million. He emphasized their strong management is a big asset as well as the work of a council that meets biweekly to process all buying actions.

As far as fiscal year 2014 goes, Mr. Marquez indicated that thus far projections show either a decline of another $150 million or an increase of up to $300 million. He said that LANL's funding is largely from either the federal Department of Energy (DOE) or the National Nuclear Security Administration (NNSA). He said that procurement dropped to $650 million in 2012 and that 2013 would show another decline.

In April 2012, LANL provided incentives to employees to leave work at LANL, which hundreds did. Another 700 positions were lost. He added that the current management team has no plans to reduce the work force further. Mr. Marquez said that as downsizing has occurred, management has preserved LANL's future by not freezing or limiting the hiring of postdoctoral and other students. Recruitment of blue-chip scientists and engineers has continued. In addition, this was the second year that LANL has collaborated with the Lannan Foundation to give scholarships to students in this region. Twenty of those students came to work for LANL out of high school. In 10 to 15 years, this will make a significant difference in the diversity profile. He mentioned that LANL and Sandia National Laboratories (SNL) could do a much better job of recruiting and retaining local talent, and that the Science, Technology, Engineering and Mathematics (STEM) program has helped to increase the local talent pool. Mr. Marquez mentioned a management review board that looks at positions available at LANL and challenges hiring practices to ensure diversity. He concluded by saying that LANL draws a large percentage of its work force population from Los Alamos County, but also draws from Rio Arriba and Santa Fe counties. (For specifics on the LANL work force in terms of areas of focus, demographics, education level and size, please see the handout.)

Member questions and ensuing discussion included the following:

- in response to concern over local contractors being stepped over in favor of out-of-state contractors:
  - there are all kinds of procurements, and vendors ask LANL to direct dollars in a particular way;
  - in weapons/science campaigns, there are often fabrications/equipment not produced in this state; and
  - for environmental cleanup and construction work, LANL tries to use local suppliers for day-to-day operations, but the challenge is the economic situation — expenditures are questioned and local contractors have an unwillingness or inability to be competitive;
- LANL has institutional agreements with most regional universities, such as a community commitment program with Santa Fe Community College, and has had agreements with Northern New Mexico College in the past in the form of a strong machinist program, and it intends to continue collaborative efforts, especially math and science programs;
- in response to concerns about the lab targeting Hispanic employees from northern New Mexico:
  - LANL has mandatory drug and alcohol testing, and there would have to be positive test results for termination;
  - there could be performance issues caused by drug or alcohol use; and
  - employees can "self-identify" drug or alcohol use and salvage their careers;
- perhaps there are not so many science-technology folks in New Mexico, and that is the reason for fewer New Mexicans being recruited; there is a huge percentage of LANL employees who spend their entire career at the lab, and keeping institutional

memory is important in the weapons industry;

- ****a request was made for a chart showing the ebb and flow of lab population over time, and LANL agreed to provide a chart that goes back to 1986;*
- LANL has local procurement preference options and flexibility to give local preferences; it might be worth looking at how Alamogordo structures its local preference option;
- technology training at branch colleges across the state and LANL's need to collaborate with more colleges and to assist in developing curriculum;
- in reference to what the state can do to foster technology transfer, it was made clear that LANL does not have a lot of assets besides its work force and quality education;
- gross receipts tax is paid by LANL as a for-profit organization as it no longer has nonprofit status as it did under the University of California; this brings in revenue to the state of approximately $40 million to $100 million, depending on budget revenue figures;
- the Northern New Mexico Consortium's work has concluded, but LANL intends to renew this collaboration;
- student internship programs draw from 2,200 students and depend on grade point average and other achievement metrics for selection; most high school students are from northern New Mexico, but college students come from across the state and postdoctoral students are more dispersed throughout the country; and
- a reminder that the STTC started as the Los Alamos National Laboratory Oversight Committee, which brought all the universities together to discuss possibilities for a curriculum that matched the skills needed by the lab and encouraged discussion and dialogue between the legislature and LANL.

Laboratory Science Overview

Mr. McBranch, chief technology officer at LANL, reviewed the breadth of LANL's national security missions, the evolution of its "culture of partnership" and details on LANL's Venture Acceleration Fund (VAF). He mentioned the diverse challenges the lab faces and the confidence that derives from focusing on its mission's impact through developing and applying science, technology and engineering solutions to national security missions. He expressed a desire for the lab to keep building its responsiveness. He added that material science has always been strong at LANL. He then emphasized the strength of the lab's advanced manufacturing, which is still in development and has a good collaborative environment, with new partnerships emerging. Advanced manufacturing has been identified as a national need that can assure that sophisticated manufacturing is linked to products and processes that arrive out of scientific discovery and technological innovation.

In reviewing the types of manufacturing at LANL at present, Mr. McBranch identified the primary mission areas as nuclear weapons, global security, renewable energy and nuclear energy. He said the lab is also engaged in work in energy security, which is a national security imperative. Focus areas in energy security include the impacts of energy demand growth, sustainable nuclear energy and clean energy. Mr. McBranch also mentioned LANL's work in

bringing the best science to the restoration of the forests in the Southwest U.S. in attempting to find the best adaptation strategy.

Mr. McBranch said that the most impactful investments made by LANL are in research and development, with $140 million being directed toward long-term science and engineering. Other programs are very directed and milestone-based and include user facilities that track several thousand people per year, a strong institutes program that partners with universities and postdoctoral and other student programs, from which 80% of technology hires come.

In fostering what Mr. McBranch called a "culture of partnership", he spoke of LANL's work with industry as well as its international partnerships, such as a "SMART house" at LANL that was enabled by Japanese investments and leveraged with DOE investments. He emphasized the importance of developing renewable energy on a community scale, citing interactions with community colleges as a crucial element. He then described the New Mexico Consortium as a new business model that involves three research universities in the state as well as LANL, Los Alamos County and Richard Sayre and his research team. A new greenhouse facility and biological research laboratory recently opened that will focus work on energy security and global food security. Mr. McBranch noted the importance of drawing more New Mexico students into the highest levels of technology.

In reporting on the VAF, Mr. McBranch gave details of the fund's investment in New Mexico counties that has totaled $2.8 million since 2006. He cited the importance of fostering private sector economy and diversity because the national laboratories will not be a foundation of the New Mexico economy 10 years from now unless these shifts are made. In describing the VAF as a unique niche essential for local small companies, Mr. McBranch pointed out that three companies were acquired and that over half of the awards made from the fund were made to existing job creators to support their growth. He then passed around a sample of "tape-ease", a product produced by one of these companies, and stressed the importance of fostering companies that are capable of taking ideas from the lab and selling them to the world.

With $15 million in revenues, the VAF has created a healthy business environment. Statistically, 41 applications have been received, with nine selected for funding for a total of $339,500. Mr. McBranch described the VAF as a thriving program that looks to accelerate the success of its entrepreneurial partners.

Member questions and ensuing discussion included the following:

- because of the difficulty in attracting venture capitalists to New Mexico, the VAF is funded directly from Los Alamos National Security's (LANS's) limited liability company fee as part of its fee commitment to the community;
- continuing to find ways of venture acceleration rather than focusing on venture capital seems crucial, and some of the most impactful state investments have been in small businesses;

- flexibility is required to leverage state money through public-private partnerships and in the area of technology transfer;
- LANL's ability to innovate is tied to the private sector, and flexibility in working with industry benefits its mission but will never be its main mission;
- there is a lot of opportunity in space-based science, and New Mexico has to find more ways to take advantage of its sunshine and clear skies;
- special purpose or small nuclear reactors have been developed that generate electricity;
- engineering resilience is high, and a willingness to experiment low, after incidents at Three Mile Island and Fukushima, and the U.S. has an "appropriately conservative regulatory system", which challenges the building of small reactors in the U.S.;
- there is opportunity for growth in the area of collaboration among people at the lab, in the universities and at the legislature and to find areas of synergy among all; and
- LANL has already worked closely with universities in nanotechnology, with SNL and Kirtland Air Force Base in space exploration and with New Mexico Institute of Mining and Technology on homeland security issues.

The RHMC and the STTC each unanimously approved minutes from their June meetings.

LANL Program Overview

Mr. Steinhaus, director of the Community Programs Office at LANL, reported on procurement percentages for LANL and New Mexico businesses, with 59% of the lab's procurements going to New Mexico companies last year and 69% thus far this year. ****A committee member requested a detailed list of businesses for procurement along with dollar amounts.*

Pertaining to community commitment, LANL's vision includes education, quality of life and a thriving economy, and to that end, it invests $1 million in each area annually. Its community model is built upon a three-foundation approach that is mutually beneficial, regional and sustainable, with investments designed so that infrastructure is built in New Mexico. In the area of education, the strategy is to build a work force for the lab and regional companies by helping students become science-literate and by working to retain talent within the state. Relating to community giving, the strategy is to work with nonprofits mainly in New Mexico and to incentivize lab employees to be volunteers. Within the arena of economic development, the strategy is to take a proactive approach in generating revenue and starting new businesses, as well as helping existing businesses to grow by providing technical assistance and expertise-sharing. Such partnerships have garnered $37.6 million in leveraged grants for northern New Mexico colleges since 2006; investments have reached 531 nonprofits in 2012; and internet access has been improved in northern New Mexico with LANS's investment of $170,000 leading to grants totaling $76.2 million for broadband infrastructure.

Program results include the awarding of 855 scholarships through employee contributions, university partnerships yielding 695 graduates, providing matches to increase

employee contributions and support given to companies and entrepreneurs that created 327 jobs. In working to develop the future work force through LANS-funded programs, there is an 86% job placement rate for graduates; $26.1 million was leveraged for math and science education; and LANL's Math and Science Academy (MSA) helps to develop teachers and has expanded this year to include four new tribal schools. Teachers have reported that the science content learned in this program greatly helps their effectiveness in the classroom, and assessments given to MSA participants before and after the program testify to this improvement. Mr. Steinhaus also highlighted Native American student achievement in the Espanola public schools as rising to 56% in 2012-2013.

Mr. Steinhaus indicated that LANL is working hard to coordinate with the state on math and science initiatives through holding statewide STEM summits and that LANL will have recommendations in a couple of months. In addition, 73 student scholarships were given out this year. Also, LANL has been recognized for its volunteer programs, winning an award in 2011 that placed LANL ahead of Google, UnitedHealth Group and Morgan Stanley.

In conclusion, Mr. Steinhaus gave some results of the economic development program, which through its small business assistance program has served 349 small businesses, provided $4.5 million in technical assistance, affected both rural and urban businesses and created nearly 3,000 jobs in the 2000-2011 time frame. He gave an example of a Taos company assisted by the VAF that is an international company that provides software for math education. LANS invested $100,000 in this company, to which the Gates Foundation provided a $500,000 match, and the company just landed a $2.5 million grant from the federal government. As Mr. Steinhaus stated, the seed money helped to make this happen. Similar arrangements are occurring in tribal businesses, where the Indian Affairs Department has agreed to match LANS funding for worthwhile projects.

Member questions and ensuing discussion included the following:

- statistics on the MSA include: cost for the program is calculated per school and the investment is about $80,000 per year per school; 80% of students who begin the program stay with it; turnover for the teacher work force is high; and 57 teachers have completed a master's program in science and math;
- the largest nonprofit grant given was for $25,000 and was awarded based on meeting certain criteria and reporting back on metrics;
- both employees and retirees are part of the volunteer incentive programs; and
- the legislature partnered with the lab to start the MSA; making the program more robust could include replicating the model in other school districts in the state.

At this point in the meeting, Representative Garcia Richard took over as chair.

LANL Cleanup Status

Peter Maggiore, assistant manager for environmental programs (EP) for the DOE and

NNSA Los Alamos Field Office, and Mr. Mousseau, associate director for EP at LANL, spoke to the committees on the EP related to the cleanup status and ground water protection. Mr. Maggiore cited that the mission of EP is to process and ship hazardous and radioactive waste to permanent disposal facilities and to clean up legacy sites and protect water resources in the state. Also, the program has to adhere to the 2005 consent order, the stormwater individual permit with the federal Environmental Protection Agency and the framework agreement with the State of New Mexico, which is not an enforceable document, but a shared commitment with the DOE, he added.

Mr. Maggiore reviewed the fiscal year 2013 budget, noting that with sequestration, the final budget ($173 million) was significantly lower than what was requested ($239 million) and less than what the budget had been the previous fiscal year. EP did receive funding through the reprogramming of $40 million. Mr. Maggiore thanked the members for legislation that assisted in this funding being achieved.

Mr. Mousseau reiterated the importance of this funding to continue remediation work and to continue shipping low-level waste off The Hill in an effort to keep the "3706 Campaign" on track. He emphasized the importance of the work at Technical Area (TA) 54, which is to remove 3,706 cubic meters of waste. In fiscal year 2012, new people were trained, capability was developed, drums were processed and shipments were made of this waste. In fiscal year 2013, LANL began to bring up operating shifts, get crews in the fields and reprocess the waste. With all that is required in terms of repackaging, diagraming, assaying, sampling, remediating and characterizing this waste, the group, consisting of 450 people, operates 24 hours per day, seven days per week. He asserted that on or before June 30, 2014, the last shipment will occur.

Mr. Mousseau indicated that the 3706 Campaign is ahead of schedule. In its June report to the New Mexico Department of Environment (NMED), the campaign was 41 cubic meters ahead of schedule. During that quarter, 538 cubic meters of waste were shipped, which is more than most years combined. A total of 361 shipments have been sent to the Waste Isolation Pilot Plant (WIPP). As part of this cleanup, transuranic (TRU) waste is being shipped to WIPP, and mixed low-level waste is shipped out of state. About 200 more shipments will be made to WIPP to complete this cleanup. After the 3706 Campaign is completed, retrieval work for below-ground TRU waste will begin, he said. Also, the newly generated waste needs to be off the mesa by the end of December 2014.

In highlighting work done to protect ground and surface water, Mr. Mousseau said that automatic sampling and monitoring are both occurring on more than 140 ground water monitoring wells, and surface water has been sampled at more than 175 locations. In terms of the consent order, of the more than 2,100 contaminated sites, 933 are complete administratively, 125 have been delayed or deferred, 75 are pending administrative action and 1,006 are in progress. The Buckman Direct Diversion Project engages in extensive monitoring and an early notification system so that water can be turned off if needed.

Mr. Mousseau stressed that the ground water protection from chromium contamination is a high priority. The contamination came from boiler-cooling tower operations that the lab engaged in between 1956 and 1972. EP is cleaning up the toxic chromium from affected areas, especially an area adjacent to Pueblo of San Ildefonso lands where there is contamination in the ground water. He described methods of dealing with the contamination, including development of a wetlands area and a grade control structure to turn Chromium 6 into Chromium 3 and to keep from ruining the wetlands. Another measure includes pumping from two wells that are in the midst of the worst area, which is a way to recover the chromium, treat the water, discharge it and put it back onto the surface of the land.

In discussing a path forward, Mr. Maggiore gave a scope of work for fiscal year 2014 that includes completing the 3706 Campaign, disposing of other TRU waste, continuing measures to deal with ground water chromium contamination and ground water and surface water monitoring and investigating and cleaning up other high-risk areas. He remarked that there has been much progress in addressing the highest environmental risks at LANL, that the work has been performed safely and that the NMED provides oversight.

Ryan Flynn, secretary-designate of environment, commended LANL for its TRU waste campaign and the rigorous schedule of waste removal. He pointed out that the TRU campaign has been a bipartisan effort and that having the legislature work with the executive has been crucial.

DeAnza Sapien, executive director of the Regional Coalition of LANL Communities, a board of eight local elected officials who represent communities surrounding LANL, said that local economic development and environmental remediation of Area G is a priority. The group worked closely with the DOE and LANL and organized at the local and regional levels to create one voice in the region to deal with environmental cleanup. He remarked that the coalition works closely with chambers of commerce and labor groups involved in cleanup and that it wants a strong partnership with the legislature, too.

Member questions and ensuing discussion included the following:

- a five-step decontamination process has been used that involves spraying waste, then using a spray/peel process and putting on a chemical that frees up radioactivity on the surface; this process will be used with newly generated waste, which could then possibly be directed to the Waste Control Specialists facility in Texas;
- processing and transportation of mixed low-level waste is cheaper than TRU waste, which adds in transportation costs to WIPP;
- the need to look at real-time monitoring and learn new technologies for the removal of waste from different water sources across the state;
- the biggest challenge in the cleanup of historic landfills is not knowing how deep the waste goes until cleanup begins;
- there are seven separate streams of below-grade waste amounting to a little over 2,000

cubic meters; in coordination with the NMED, there is a framework agreement that gives a schedule and quantities by year; thus far, six of these are scheduled;
- the NMED wants the chromium plume properly defined, but there is not an imminent threat to Los Alamos County and no connection to water that ends up as surface water at Buckman;
- policymakers need a better sense of the hydrogeology of the state's aquifers; EP will prepare a summary to that end;
- the DOE has a classification of waste that specifies the different types as either high-level, TRU, low-level or mixed; each has special requirements for handling and processing;
- most waste is contaminated with hazardous materials, so it becomes "mixed";
- there are permitting requirements for waste, acceptance criteria for where the waste ends up and inspections of the waste treatment processes;
- concern over the Aamodt water settlement and the effect of chromium contamination; water patterns and contamination need to be looked at in this area;
- the WIPP route and the possibility of work on the intersection of NM 599 and I-25; and
- WIPP controls the schedule of shipments.

Regional Economic Development Initiative (REDI Net)

Laura Gonzales, chief information officer for REDI Net, noted the importance of fiber communications, citing that global data traffic has grown 800% over the past five years, and the internet, including television and video, has also grown hugely. She remarked that there are actually more technological devices than people in the U.S. Having fiber networks also enhances economic growth in communities, she said, referring to findings of the Fiber to the Home Council's 2012 annual conference that showed an increase in new businesses after fiber installations in those communities. Some of the benefits in communities with high-speed broadband include distance education, telemedicine, emergency response, cybersecurity, smart metering and a variety of economic development possibilities such as home-based businesses, tech startups and assisting local growers with technology.

REDI Net is a middle-mile-to-last-mile regional fiber initiative that puts in backbone fiber for local service providers to homes. REDI Net was developed in response to regional need, which was determined by a cooperative made up of the North Central New Mexico Economic Development District, pueblos, counties and electric cooperatives. The group then decided to apply for funding together, with the economic development district as the primary applicant. Ms. Gonzales said that REDI Net was successful in receiving funding to build infrastructure for high-speed broadband service and that it is now over 96% complete for initial buildout of the project. This network serves hospitals, medical clinics, schools, public safety entities, libraries, tribal buildings and county buildings and begins in Santa Fe and ends in Hernandez and branches off to all of these different locations. (See page 12 of the handout for a map of the project's reach.)

Ms. Gonzales noted that REDI Net is moving forward with partnerships among the state, local and tribal governments, electric cooperatives and telecommunications providers, as well as working with the federal government to expedite the construction of fiber pathways. She mentioned that there have been several delays due to all of the governmental red tape to get projects built out. She detailed the general approaches needed to move forward, which include developing standard practices; leveraging programs, funds and infrastructure that are already available; and mitigating and assessing risks. Ms. Gonzales also advocated for New Mexico becoming a fiber-friendly state and finding creative ways to get fiber into communities without spending a lot of money.

Member questions and ensuing discussion included the following:

- Colorado set aside certain funds to dedicate to fiber networks, and there has been discussion about New Mexico setting aside some of its education funding to build fiber out to schools;
- REDI Net partners with last-mile service providers to bring service to schools, hospitals and the state; the state did not want to participate, but it still could;
- **** A committee member made the request to have a letter written to Jemez Electric Cooperative to inquire about the progress of the fiber network in La Mesilla; the letter would stress the importance of adhering to the schedule so as not to miss out on funding;*
- REDI Net has five entities that have applied to service the last mile, and, with growth, more entities will come on board;
- there are opportunities for New Mexico to apply for federal funding for broadband support, interconnection and sharing of resources;
- REDI Net has a consortium of educational institutions participating in a three-component analysis and assessment and will be able to present its findings to the legislature;
- fiber networking does not require as much maintenance as the equipment that accompanies it, which often has a five- to seven-year obsolescence that needs to be planned for, and REDI Net is putting money into reserves to deal with replacements and maintenance;
- in the southern part of the state, construction began in 2010 on fiber networks, which is now 96% complete;
- there are local companies that train and certify people in fiber optics, and the more the network grows, the more these services will be needed;
- in terms of ownership of the fiber and equipment, the physical infrastructure of fiber and conduits is owned by the city, county or entity, and the equipment is owned and maintained by REDI Net until the grant period is over, when ownership is then transferred to the entities;
- REDI Net oversees contracts to maintain and repair fiber and often does this with in-kind agreements with communities;
- no state funds have been used to date to support any of these projects;

- REDI Net needs to start discussions with the Public Education Department on expanding this technology to schools; and
- it is important to have middle-mile fiber routes established to increase available bandwidth.

Adjournment

There being no further business, the meeting adjourned at 4:50 p.m.

Thursday, July 18

Tour of LANL

LANL provided an invitation-only tour to members of the RHMC and STTC and staff, which focused on the TA 54, Area G cleanup site as well as the site of the new TRU waste facility, viewing Transuranic Waste Transportation Containers and viewing the Buckman gauge station for water monitoring.

MINUTES
of the
THIRD MEETING
of the
RADIOACTIVE AND HAZARDOUS MATERIALS COMMITTEE

October 8, 2013
Pecos River Village Conference Center
Carlsbad

The third meeting of the Radioactive and Hazardous Materials Committee (RHMC) was called to order by Senator Peter Wirth, chair, on Tuesday, October 8, at the Pecos River Village Conference Center in Carlsbad.

Present
Sen. Peter Wirth, Chair
Rep. Eliseo Lee Alcon, Vice Chair
Rep. Thomas A. Anderson
Rep. Cathrynn N. Brown
Rep. David M. Gallegos
Rep. Stephanie Garcia Richard
Sen. Gay G. Kernan
Sen. Carroll H. Leavell
Sen. Richard C. Martinez
Sen. John Pinto
Rep. Jim R. Trujillo

Absent
Sen. Carlos R. Cisneros

Advisory Members
Sen. Ron Griggs
Rep. Donald E. Bratton
Sen. William F. Burt
Rep. Brian F. Egolf, Jr.
Rep. William "Bill" J. Gray
Sen. Stuart Ingle
Sen. Daniel A. Ivey-Soto
Rep. Emily Kane
Sen. Michael Padilla
Sen. William H. Payne
Sen. Nancy Rodriguez
Rep. Nick L. Salazar
Sen. Clemente Sanchez
Sen. Lisa A. Torraco

Staff
Gordon Meeks, Legislative Council Service (LCS)
Renée Gregorio, LCS

Guests
The guest list is in the meeting file.

Tuesday, October 8

URENCO Update
Clint Williamson, chief executive officer, URENCO, and Jay Laughlin, chief nuclear officer and head of operations at URENCO, reviewed the company's mission, technology, operations and new construction. Mr. Laughlin indicated how privileged URENCO is to be operating in New Mexico and stressed its desire to be a good corporate citizen. He added that nuclear energy is the only option for sustainable global energy without leaving a significant carbon imprint. He stated that URENCO built its foundation on safety and quality and spoke of the importance of nuclear safety alongside security and the protection of its employees and the environment. Other than one incident with a forklift operator in this past year, URENCO's industrial safety record is stellar, he added, with nearly 650,000 hours worked without a construction-related accident.

Mr. Laughlin said that URENCO has 350 full-time employees along with a current construction staff of about 1,000. He then spoke about the state-of-the-art centrifuge technology, which was developed by a consortium of British, Dutch and German governments and includes some centrifuges that have operated constantly for 30 years. He reviewed the workings of the centrifuge, which spins natural uranium at a very high rate of speed and siphons off enriched uranium and turns it into a gas that is then cooled, while the depleted uranium is stored in cylinders and still contains a high percentage of U-235. He added that these "tails" can be run through a process that would generate more product at this stage.

Mr. Laughlin then provided a time line of URENCO's activities and spoke of the challenge the nuclear industry worked through regarding not having state and local support for nuclear facilities due to the separation of building and operating procedures, which led the Nuclear Regulatory Commission (NRC) to derive a combined license that allows for building first and operating later. URENCO had the first of these licenses in the country and is the first operating facility for new construction, too. (See time line details in the handout.)

In reviewing URENCO's operations, Mr. Laughlin said that the current operating cascade status is at 40 cascades in service, with 16 in phase 2. He added that on Thursday, the forty-first cascade will go into place, bringing the capacity to 3.1 million separative work units. Mr. Laughlin gave details of the plant's site and buildings, including construction currently happening and inspections ongoing with the NRC. Highlights of the construction at URENCO include being several weeks ahead of schedule on Module 1005 because of the modular approach taken

in construction; and phases 2 and 3 are showing reductions in both cost and scheduling time due to lessons learned in the first phase. In addition, phase 3 includes a new utility service module to handle the next phases.

Questions and comments ensued and the following points were made:

- U.S. Enrichment Corporation is working on its own centrifuge design, but it has significant maintenance challenges. The company only has one million to two million hours of centrifuge operation compared to URENCO's 60 million hours, and it is likely it will not be able to find a sufficient business base to enter into the U.S. market, despite the need in the market;
- by license, URENCO's "tails" can be maintained onsite for 25 years; meanwhile, URENCO is looking at various options for the tails, which still have enough uranium in them to extract, but the economic viability of extracting more or disposing of the tails has not been determined;
- options for what to do with the tails after processing include having Isotopes International purchase them, having tails go through a deconversion process, which is an expensive option, or having tails stored at the Waste Control Specialists (WCS) facility in Texas;
- URENCO owns the tails, but the utilities themselves own the material as it goes through the process of conversion, enrichment and fabrication;
- now that Germany has declined to use nuclear power, it is buying power from France and Brussels and still has some nuclear capability at its 19 operating facilities;
- government treaties that are related to nuclear energy give URENCO the authority to access technology developed by the British and the Dutch and do not allow URENCO to generate anything related to nuclear weapons, only power and fuel for nuclear submarines;
- nothing that URENCO produces is above 5.0% enrichment, although it is seeking an amendment to get this limit increased to 5.5% to have additional operating flexibility;
- inspections by the NRC are conducted two to three weeks per month related to emergency preparedness, maintenance, operations and construction; operations inspections are fairly continuous, but because URENCO has fewer safety standard issues, inspections are done only once a month or every six weeks;
- even though safety factors with nuclear energy can be regarded as substantial, four new power plants are in construction in Georgia and South Carolina; the modular process will ease the setup of new plants; worldwide, China plans on putting in 100 new reactors in the next 20 years and India, Korea, the United Arab Republic and Saudi Arabia have all been working on plants;
- related to energy needs, third-world requirements are increasing and although there is a place for solar and wind energy, it is necessary to look at the scale worldwide and the land mass required to utilize solar or wind power;
- smaller reactors could be instituted where there is smaller need and expanded as needs grow; there are microreactors that supply in the 50 megawatt (MW) to 80 MW range, some with a single refueling option, as well as other options in this range;

- the limit for tail storage at URENCO is 25,000 tails, and currently there are approximately 2,000 tails stored at the site;
- URENCO will supply the RHMC with figures on how much it pays in taxes to the state;
- URENCO pays $40 million in salaries annually;
- concerns over the effects of mining the land, the impact of new mines on limited water resources, leaving waste behind and tribes having to live with the legacy of mining;
- in the production process, URENCO uses less water than a nine-hole golf course does in a year and the cooling towers use 20,000 gallons of water per day; URENCO's water comes from the Eunice municipal supply; and
- the state is closing coal-fired power plants, and although nuclear energy does not affect climate change, New Mexico has an extraordinary resource in the sun and its residents could choose to use solar power without any impact to the land.

The RHMC unanimously approved the minutes from its July meeting.

Waste Isolation Pilot Plant (WIPP) Status Report

Tom Blaine, director of the Environmental Health Division at New Mexico's Department of Environment (NMED), and Trais Kliphuis, manager of the WIPP Group at NMED, gave an overview of the WIPP hazardous waste permit and the NMED's regulatory function. The 1,500-page document includes regulations on characterization, audits and monitoring, and there are 22 oversight or regulatory bodies involved in this process, six of which are within the NMED. Mr. Blaine emphasized that as a regulatory body, the NMED must continuously create a balance between enforcing regulations and developing a strong relationship with the permittee, and that this requires good communication. He added that often the process can require modifications to either processes or procedures and that the permit is a living document that provides guidance and clarity on the responsibilities of the permittee and the regulatory body. (See handout for what is contained in the eight parts of the permit.) Mr. Blaine summarized the three classes of permit modifications, which range from information changes to add clarity to day-to-day operations to major changes that would require public hearings and comment periods.

Mr. Blaine reviewed recent permit modifications, including a shielded container modification that allows remote-handled (RH) waste to be managed as contact-handled (CH) waste (RH waste requires equipment to move waste; CH waste has direct contact with a person). He also indicated that major modifications were made to the Waste Analysis Plan that eliminated redundancy in testing and reduced this cost by about $4 million per year, a significant portion of the budget. He stressed that the NMED is assured that the level of protection has not been affected.

Ms. Kliphuis summarized current permit modifications. She spoke of a Class 3 modification that excluded waste prohibition and was controversial, receiving 930 public comments. She stated that Ryan C. Flynn, secretary-designate of the NMED, is determined to have more hearings on this issue. The permit requires the NMED to have a Class 3 permit

modification if wastes are ever shipped to WIPP. The controversy is based on this waste being managed as high-level waste, and the hearing process would create a situation whereby the NMED would have to determine the type of waste, which is beyond the NMED's scope. Other current modifications are for panel closure design, repository reconfiguration and revising the volatile organic compound list. (See handout for time lines for these modifications.)

Ms. Kliphuis highlighted recent audit approvals, saying that each site requires an annual audit to ensure that policies, processes and procedures are compliant with the terms of the permit in order for waste to go to WIPP. Approvals were given from Oak Ridge National Laboratory, the Hanford site, Idaho National Laboratory, the Savannah River site and Sandia National Laboratories. She also mentioned that some audit reports are awaiting completion and others are upcoming (see handout for details).

Mr. Blaine jumped in to give accolades to the WIPP facility because its last inspection revealed no findings. He stressed that this fact indicates that the facility and its inspectors know the permit, which is a big task in itself, and that this shows there is good communication between the NMED as regulator and the permittee.

He indicated the number of shipments received at WIPP from various facilities, with Idaho National Laboratory clocking the most shipments at 5,689, and said that the number of miles and amount of waste being shipped coupled with the impressive safety record are phenomenal. Six out of 10 panels at the site are currently being utilized, and the facility is 51% filled.

In conclusion, Mr. Blaine said that the NMED continues to ensure that WIPP is in compliance with the hazardous waste facility permit and recommended NMED's web site to members for further information (http://www.nmenv.state.nm.us/wipp/).

Questions and comments ensued and the following points were made:

- in terms of the controversial permit modification related to excluded waste, facilities may not discriminate between transuranic (TRU) waste and high-level waste and may store it separately but handle it all as high-level waste; the permit states that any waste that has been handled as high-level waste cannot be shipped to WIPP regardless of whether it really is high-level waste or not; the permit modification adds clarity to this but does not change the waste acceptance criteria currently defined in the permit;
- the waste at the Hanford site identified as TRU waste that could be shipped to WIPP is contained in 11 tanks and would not have a large impact on WIPP's storage capacity;
- in Class 3 permit modifications, there are public comments before a hearing; the NMED reviews the comments and the permit, drafts changes and makes these available to the public for comment, then the public can request a hearing and enter negotiations; and
- there is no current proposal to ship liquids to WIPP, and the permit does not allow liquid transport.

WIPP Mission

Former State Representative John Heaton surveyed activities in southeastern New Mexico's "Nuclear Corridor" by citing those facilities currently in operation (WCS, URENCO and WIPP) and proposed facilities and activities that include International Isotopes, the Eddy-Lea Energy Alliance (ELEA) interim storage site, generic thermal load studies in salt and small modular reactors (SMRs). He said that WCS disposes of, stores, treats and processes low-level and mixed radioactive waste and that URENCO's enormous complex represents an investment of over $3 billion for the state and lauded its efforts and results.

Mr. Heaton spoke of the WIPP's next pilot mission to consider if salt is an appropriate medium for defense high-level waste. He gave an overview of the appropriateness of WIPP's location because of salt's effectiveness as a storage medium for nuclear waste, the very stable geology of the area, the fact that there is very little water in area and that salt in massive amounts is impermeable to water. He also said that it is easy to mine and that any fractures close because of pressure and the plastic nature of salt, so the land heals itself without needing any engineered barriers.

He gave a geologic profile of the WIPP site and said the amount of land withdrawn for the site is 16 square miles, of which two-thirds of a square mile is taken up by the repository, with plenty of space for other ventures. He mentioned all of the protests against nuclear power in the 1980s and then the community support for WIPP in 2009. Among WIPP's successes, Mr. Heaton cited its safe operation over its nearly 14 million loaded miles, with the repository now being about half-full. He spoke of the many limits in the federal Waste Isolation Pilot Plant Land Withdrawal Act that govern WIPP's operation.

Among the future projects Mr. Heaton detailed are an International Isotopes project to deal with depleted uranium out of the URENCO facility, which is now on hold because tail reconversion out of federal sites is not occurring; the interim storage facility in which ELEA purchased 1,000 acres of land for a potential site because of its remote location, geologic stability, dryness, presence of infrastructure and supportive community; a private fuel storage facility in Utah that is similar to what it would look like in New Mexico; and risk assessment for a dry cask storage system at a nuclear power plant.

He then reviewed the makeup of spent fuel storage casks, one concrete, the other steel-walled, alongside safety functions of the fuel rod, cannister and cask; fuel loading; welding of the lid; and transfer of the canister into an overpack, the pack to the pad, the cannister into the module and the cask to the site.

In reviewing why interim storage is crucial, Mr. Heaton said that power plants are overloaded and have little dry cask storage capacity. He added that although the federal Department of Environment (DOE) was required to take this waste by 1998, it has not, and utilities have sued the DOE. Out of the settlement fund, the treasury will pay out $20 billion

until the opening of a repository around 2048. He indicated that interim storage could be in place by 2020 or 2021, and this would stop these payments. He mentioned that power plants in high population areas need to mitigate their risks and added that the DOE will spend $250 million on new storage facilities at the West Valley and Savannah River sites. Also, repackaging for the repository is needed before storage can happen.

Among the economic benefits Mr. Heaton cited are jobs related to interim storage operations, a research and development facility, a repackaging facility and an intermodal maintenance facility. The issue of interim storage was the centerpiece of the blue ribbon commission report and is included in the Senate version of the proposed federal Nuclear Waste Administration Act of 2013, although House Republicans oppose any storage or repository language in the bill. Mr. Heaton advocated for a committee that could present the pros and cons to educate the New Mexico population and to embrace a consent-based process.

Mr. Heaton then reviewed reasons for conducting a generic salt defense disposal investigation (SDDI) at WIPP, which include cost and time savings, the fact that testing could begin immediately without any mining or investigations needed and tests would be used to prove and confirm a series of measurements, such as water movement, temperature, salt pressure and ventilation conditions. He then reviewed the layout and drifts of the SDDI tests as well as the schedule for the testing. He also said that Xcel is phasing out power to the cooperatives and that four eastern New Mexico cooperatives will be affected along with farmers in other western states. This will call for the need to replace a minimum of 360 MWs by 2023 and SMRs are being proposed to meet this need.

Todd Willens, chief of staff, Office of Congressman Steve Pearce, reported on H.R. 1879, the Government Waste Isolation Pilot Plant Extension Act of 2013. He pointed out that many Americans are not aware of the WIPP facility or its mission of disposing of low-level defense-mission TRU waste or its stellar safety record in working its mission. He then spoke of how WIPP's mission will end in 2030 and closure and decommissioning of the site will occur. He then emphasized the lowering of WIPP's shipment averages, from 36 per week, to 26 per week two years ago, to 20 per week at present. He said that WIPP officials indicate that number will fluctuate between 17 and 22 per week in the next several years and that this decrease will necessarily affect the job rate and the economy.

Because WIPP uses only 60% of the available mined area of its facility and there is enough room to handle and dispose of additional TRU waste, Mr. Willens built the case for H.R. 1879 by saying that one stream of TRU waste is really no different from another and that the only difference is the mission under which the waste was generated, either defense-related or non-defense waste. The assumption is that non-defense waste is a strong candidate for storage at WIPP because it poses no greater risk to public health than the defense-mission waste, Mr. Willens pointed out. Such waste is currently held at DOE sites around the country because there is no existing means of disposal. He said that H.R. 1879 would accomplish the following: it allows WIPP to accept all government-owned TRU waste; it cleans up TRU waste at Los Alamos

National Laboratory (LANL) and in six other states; and it disposes of 148,000 cubic feet of waste now sitting in temporary storage. Mr. Willens indicated that this additional waste would keep shipments to WIPP stable for another five to seven years. He said that H.R. 1879 was unanimously approved by the House of Representatives and is awaiting passage in the Senate.

To round off the nuclear discussion, Don Hancock of the Southwest Research and Information Center, a 42-year-old nonprofit that deals with uranium and waste issues, began reviewing WIPP's mission, which is accomplished at the cost of billions of dollars, to safely operate a facility for and transport TRU waste through more than 20 states, to meet commitments and time frames for cleanup of waste and to safely close, decontaminate and decommission the site beginning in 2030 or earlier. He pointed out that no deep geologic repository has yet been able to accomplish such a mission and cited failed German facilities that have closed prior to completing their missions.

He then encapsulated WIPP's results as of the end of September (see handout for details). He highlighted cost figures at nearly $6 billion to accomplish waste shipment and disposal thus far, a failure to handle all the RH TRU waste, that the volume of waste being shipped is decreasing every year, a failure to meet performance measures for waste and proposed changes for underground operations and expansion. He gave more details on RH waste and pointed to a table that shows that less than 47% of capacity is being used. He indicated that the DOE does not want to talk about what to do about the problem of not using RH waste capacity. (For figures, note those in red on the handout.)

Regarding a few proposals for the expansion of WIPP, Mr. Hancock noted that the proposal to store mercury at the site has nothing to do with WIPP's mission; that any effort to rename high-level waste, such as the idea to ship such waste from the Hanford site to WIPP, is another diversion from WIPP's mission; and that transporting commercial waste greater than Class C to WIPP is in violation of WIPP's authorizing legislation. In speaking of Representative Pearce's bill and amendment, Mr. Hancock stressed that WIPP is supposed to be a "pilot plant" and not the only DOE repository in the country and that waste other than defense TRU waste can be and must be stored safely in other locations until there are other repositories for such waste.

Mr. Hancock also spoke about the storage of commercial spent fuel, which New Mexico has historically not consented to store. He cited both the WIPP Land Withdrawal Act that specifically bans the transportation and disposal of high-level radioactive waste and spent nuclear fuel at WIPP and the failure of Wendell Chino's proposal with both the Mescalero Apache Tribe and the state. Mr. Hancock pointed to a map showing the locations of nuclear power reactors in the U.S., with 88% being east of the one hundredth meridian, yet the burden for storage of waste is on the western states. He concluded that spent fuel should remain on site at reactors in dry storage, which needs to be accelerated and improved.

Questions and comments ensued and the following points were made:

- a process is needed to set standards for a facility that could handle high-level

commercial waste and to determine technically what the best sites would be;

- not everyone agrees that salt is a good medium for hot spent fuel;
- commercial mercury can be stored safely in sites designed for that mission, and it does not make sense to transport such waste to New Mexico; the proposal for this waste is to store it on the land's surface; the DOE's preferred alternative to WIPP is to bring this waste to WCS; Carlsbad sees this proposal as a diversion from WIPP's mission, with little or no economic benefit to the state;
- in determining community acceptance of nuclear waste administration, the blue ribbon task force recommended a consent-based approach; Congress has yet to decide whether the DOE will be the responsible agency or if it will be a new agency; and there is a question of whether competition results in the highest or lowest bidder getting storage and disposal facilities;
- what made repositories in Germany close down was that the sites were unsafe, but both sites were abandoned mine sites that do not resemble the WIPP site;
- the question of whether the "pilot project" nature of WIPP could be expanded to include other waste; Section 12 of the WIPP Land Withdrawal Act bans the transport of "high-level radioactive waste or spent nuclear fuel to WIPP".
- if the mission of WIPP is not expanded, much non-defense TRU waste will sit where it is, including at LANL; the original mission for WIPP was to receive high-level waste, and it is questionable if the amount of it "out there" would supersede WIPP's current mission; and
- once the 3706 campaign is completed at LANL, the buried waste, especially at Area G, has to be dealt with. It is not yet clear how much TRU waste from LANL will go to WIPP, and there is concern about bringing out-of-state waste to WIPP.

Public Comment

Betty Richards relayed her concern with the geology of WIPP and the drilling currently going on. She questioned why the Bureau of Land Management has allowed the drilling, which causes salt beds to be disturbed. She opined that the DOE did not go far enough in its water testing and that the drilling will create other conduits where the waste could then breech.

Carlsbad Brine Well Update

Jim Griswold, senior hydrologist with the Energy, Minerals and Natural Resources Department, reviewed sites on the map surrounding the brine well, which include an agricultural supply store, the Burlington Northern Santa Fe Railway, a feed store, a church, a trailer park and service stations, all in the vicinity of U.S. highways 285 and 62/180. He stated that there has been concern about the brine well's location after two brine-making operations of a similar history and geology failed in 2008. He also mentioned that sites outlined in yellow (a truck stop and service stations) contain underground storage tanks.

Mr. Griswold gave details of the professional and technical services contract that began with a request for proposals in April 2012; in July of that year, AMEC Environment and Infrastructure was selected. He said that the scope of work was broken into three tasks: site

monitoring and early warning, geophysical characterization and a feasibility study. In the first task, systems and programs were evaluated, improvements recommended and made, sensitive instrumentation conduits buried and probes installed for soil temperature and canal water level. Currently, webcams are being installed. He added that the cameras are largely for emergency response so that an assessment of what is going on at a site can be achieved from a distance.

In reviewing a surface subsidence graph, Mr. Griswold indicated the 72 surface benchmarks across the location showing a slow surface subsidence downward. On another graph, he indicated that four borehole tiltmeters have been installed that show movement happening in microradians; he added that this measurement is the heart of the early warning system. The graph for cavern pressure monitoring shows that the environment is not really stable, with pressure increasing over time. Ground water levels have declined by nearly 30 feet, although the levels did increase by about five feet in the "great flood of 2013", as Mr. Griswold said.

In the second task, a refinement of a magnetotelluric survey has been completed and a coring process to verify data was started recently as well as reinterpreting geophysical data that has been collected over time. Mr. Griswold referred to a photograph in the handout that shows the disturbed zone and how it has shifted slightly over time. He added that the zone incorporates about 40 million cubic feet of material and that based on production records, only 6 million to 8 million feet of salt would have been removed from this area. He said that the voided area is closely linked to the wells where fresh water was injected. He also spoke of the drilling that is done away from the disturbed zone that can verify the state of the salt formation. Because when a rock is put under stress, it will deform and there can be fractures in the rock that release energy, this energy can be read as very small seismic events. He explained that microseismicity is an enhanced early warning system that can show where areas of the cavern are weakest and indicate if any remedial action worked. He then showed the schematic of a bore, saying that no open bores are left but are closed up when the boring is completed.

The final task is the feasibility study, which Mr. Griswold said is due before the end of the fiscal year. He added that a report is in process that documents the next steps for decision-makers and looks at all options going forward. He said that the study will involve all of the stakeholders and that two public meetings have already been held this year. Mr. Griswold concluded by stating that minimum options that need to be considered are: back-filling the cavern; structural support and strengthening; controlled collapse; and basically doing nothing except to continue the monitoring.

Questions and comments ensued and the following points were made:

- filling a hole costs a whole lot of money; $1 million was spent back-filling a collapse that occurred, and it would likely cost about $5 million just to transport material for filling to Carlsbad;
- approximately $180,000 per month goes into a reclamation fund; this is a portion of the money coming into the fund from taxes imposed on the oil and gas industry;
- up against the edge of the basin, which is salted and thick, it is harder to mine and there are not a lot of people applying for new brine well permits, even though the need for brine in the fields is substantial; and

- methodologies, techniques and lessons learned in drilling are being studied so that this knowledge can be shared.

Adjournment

There being no further business, the meeting adjourned at 3:45 p.m.

MINUTES
of the
FOURTH MEETING
of the
RADIOACTIVE AND HAZARDOUS MATERIALS COMMITTEE

November 12, 2013
Room 311, State Capitol
Santa Fe

The fourth meeting of the Radioactive and Hazardous Materials Committee (RHMC) was called to order by Senator Peter Wirth, chair, on Tuesday, November 12, 2013, in Room 311 of the State Capitol.

Present
Sen. Peter Wirth, Chair
Rep. Eliseo Lee Alcon, Vice Chair
Rep. Thomas A. Anderson
Rep. Stephanie Garcia Richard
Sen. Gay G. Kernan
Sen. Carroll H. Leavell
Sen. Richard C. Martinez
Sen. John Pinto
Rep. Jim R. Trujillo

Absent
Rep. Cathrynn N. Brown
Sen. Carlos R. Cisneros
Rep. David M. Gallegos

Advisory Members
Sen. Ron Griggs
Sen. Daniel A. Ivey-Soto
Sen. Michael Padilla
Sen. Nancy Rodriguez
Rep. Nick L. Salazar

Rep. Donald E. Bratton
Sen. William F. Burt
Rep. Brian F. Egolf, Jr.
Rep. William "Bill" J. Gray
Sen. Stuart Ingle
Rep. Emily Kane
Sen. William H. Payne
Sen. Clemente Sanchez
Sen. Lisa A. Torraco

Staff
Gordon Meeks, Legislative Council Service (LCS)
Renée Gregorio, LCS

Guests
The guest list is in the meeting file.

Handouts

Handouts and other written testimony are in the meeting file.

Tuesday, November 12

The minutes from the October RHMC meeting were adopted unanimously.

Product Stewardship

Jill Turner, pollution prevention program manager at New Mexico's Department of Environment (NMED), reviewed the efforts and conclusions made by the task force that was formed as a result of House Memorial (HM) 56 (2013) asking the department to study the efficacy of establishing a product stewardship program in New Mexico. Ms. Turner said that product stewardship is becoming more common in the U.S. as a product-centered approach to environmental protection that calls on all participants in a product's life cycle to share responsibility for reducing the environmental impact of that product. She added that extended producer responsibility (EPR) is a type of product stewardship that shifts financial and management responsibility away from the public sector and provides incentives to producers to incorporate environmental considerations into the design of products. Ms. Turner then identified product categories considered in stewardship programs in other states, such as electronics, mattresses, carpets and products containing mercury. She stated that legislation for product stewardship programs has helped to increase both the recycling of such products and their end-of-life management. She said that EPR programs in other states have had a neutral or positive effect on local businesses.

A task force met during the fall of this year (see Appendix A of the NMED's report for its members) and researched product stewardship in the U.S., then made recommendations for what products would most benefit from product stewardship, Ms. Turner said. The task force created findings for each of HM 56's tasks, which included recommendations for the following: 1) establishing stewardship programs; 2) changes to existing statute to facilitate stewardship goals; 3) identifying any national stewardship programs that could voluntarily serve New Mexico; and 4) identifying a product or category for a stewardship program. Ms. Turner reviewed some of the task force's actions and findings. For the first task, she indicated the following: there are currently no stewardship programs in existence in New Mexico; the task force researched and corresponded with other organizations; an advisory group was formed to facilitate the design and implementation of a product stewardship program; benefits and challenges of product stewardship programs were identified; and there is a need to coordinate with industry associations to determine the use of and waste generation rates of products. As related to the second task of HM 56, Ms. Turner indicated that there is nothing in state statute that prohibits stewardship and that the task force determined that such a program would actually support the Solid Waste Act as written. She said that language stating that product stewardship is a waste management tool could be added to the solid waste management plan, however. In regard to the third task, Ms. Turner said that the task force identified and formed relationships with industry organizations that are willing to serve New Mexico voluntarily; of these, the Product

Stewardship Institute does request a membership fee after one year. Regarding the fourth task, Ms. Turner stated that three product categories were initially identified as potential candidates for product stewardship programs: mattresses, paint and electronics. She said that the task force's recommendation is to begin with a pilot program for mattresses during 2014 that would be facilitated by a product stewardship advisory group. Ms. Turner then reviewed issues related to mattresses that caused the task force to select this category over the others, which include illegal dumping, hazardous conditions at landfills and the fact that other states have figured out ways to create jobs in the recycling of mattresses. She also stated that California, Connecticut and Rhode Island currently have EPR laws for mattresses, all passed in 2013. Ms. Turner concluded by saying that the task force believes that product stewardship could be successful in New Mexico.

Questions and comments ensued and the following points were made:

- in general, most appliances and vehicles have recycling options and do not end up in landfills, and the task force did not find product stewardship or EPR bills addressing such products;
- related to illegal dumping in rural areas of the state, there is a competitive grant process and recurring funding source that allow for the cleanup of land grant disposal sites, for example, and there are increasing opportunities for recycling in rural areas;
- illegal dumping is an issue in more than just rural areas, notably the Pajarito Mesa in Albuquerque, where funding sources are being sought to clean up and recycle the three million tires that are there;
- specifics of the pilot program need to be worked out related to health and safety issues of a mattress recycling program as well as data collection;
- the task force did not discuss the handling of furniture or of freon in appliances as there are no existing product stewardship programs that address either; New Mexico has a successful scrap metal recycling program in which the freon has to be removed by a licensed person, and this is one of the largest recycling revenue sources;
- what is established in other states' legislation for product stewardship is a fee structure for EPR manufacturers that is paid to the program that manages the product at the end of its life cycle; and
- the RHMC would like an update on this pilot program during the next interim to review and determine any future need for legislation.

Innovations in Water Treatment

Jaime Geronimo Vela, doctoral student, New Mexico State University (NMSU), and Dr. Antonio Lara, professor of chemistry, NMSU, began by introducing the research team of students from the NMSU chemistry department who are engaged in devising new methods of water treatment. Mr. Vela passed out pellets for committee members to see, while giving statistics on the uranium contamination of ground water, especially on the Navajo Nation. He said that 30% of households on the Navajo Nation are not connected to a public water supply and that over 14,000 households and 54,000 people are without potable water. Because many water sources remain untested, it is not clear how much ground water contamination there is, and Mr. Vela indicated that with the proper instrumentation, NMSU's team could analyze water on the Navajo

Nation. He added that his group already analyzed 200 wells and found uranium contamination in 34 of those wells. He said that the system NMSU has devised is proven in concept and method, involves "just dirt and student time", does not cost very much and is sustainable over the long haul. The technology that this team has developed cleans up uranium-contaminated water, and the research team could test both soil and water in Navajo Nation wells for contamination. The group needs assistance in order to take the next steps, he told the RHMC.

Dr. Lara reiterated Mr. Vela's appeal for help to bring their hard-earned technology to fruition. He spoke in more detail about the pellet system itself, saying that pellets get rid of pathogens, bacteria, uranium and other heavy metals. This system is being used in Haiti, Central America and South America, he added. Dr. Lara testified to the simplicity of this system, one that is based on opposing charges: organic compounds are negatively charged; pollutants are positively charged; and uranium absorbs into the clay because of the difference in charge. He said that because of the system's simplicity, it can be run by households and communities. He mentioned that other water treatment systems, such as reverse osmosis and distillation, actually "squeeze water" and, after processing, contaminated water is left. These systems are also expensive and require high maintenance, he added.

Dr. Lara spoke in more detail about the choice to use clay pellets, saying that the pellets need to be robust and able to be transported and stored safely without leaching. Some clays have more capacity than others because of the charge they hold. The pH level must also be just right, he added. He said that with the work of the research group, a strong pellet has been developed as well as a means to ensure that uranium is not released from the pellets. Pointing to the sample containers the group had brought into the committee room, Dr. Lara said that even sewer water can be made into clean drinking water in a short period of time with this method and that this could be instituted in disaster areas such as the Philippines. He indicated that the research group needs to build a prototype that can then be tested and to initiate quality assurance. He stated that no one is monitoring the wells on the Navajo Nation and that the water contains cadmium, mercury and other heavy metals in addition to uranium, that people are dying from drinking this water and that his research team already knows how to eliminate heavy metals from water. He ended with a request for assistance that would help the research group sample water correctly and obtain the needed instrumentation for quality assurance.

Questions and comments ensued and the following points were made:

- there is movement inside the buckets as water is being purified due to the ion exchange occurring in the process; drinking water is created fairly quickly because of this movement; and
- approximately $250,000 could be appropriated through the capital outlay process of either the state or the Navajo Nation to provide NMSU with the needed instrumentation equipment.

On a motion by Senator Martinez and seconded by Senator Padilla, the RHMC unanimously requested that staff write a letter to NMSU recommending that it fund Dr. Lara's research team and make a capital outlay request to the legislature for $250,000 for equipment.

WIPP Status Update

Joe Franco, Carlsbad Field Office manager, U.S. Department of Energy (DOE), and Farok Sharif, president and project manager, Nuclear Waste Partnership LLC, presented an update on the Waste Isolation Pilot Plant (WIPP). Mr. Franco reviewed WIPP basics, such as why salt is the appropriate repository for transuranic (TRU) waste, the characterization of waste, WIPP's transportation system of carriers and TRU waste shipment containers, the number of containers disposed of at WIPP, responder training provided by the DOE along the WIPP route and companies that make up the WIPP team. He stated that WIPP has had to prove its safety and has gone through performance assessments to satisfy federal Environmental Protection Agency (EPA) criteria, showing that there would be no radioactive particles coming out of the mine for 10,000 years. This assessment is updated and certified by the EPA every five years, he added.

By 2013, the total number of shipments received at WIPP numbered 11,708; there have been 628 shipments in 2013 thus far. Mr. Franco indicated that although the shipping volume has decreased, the curie content has actually risen. In reviewing the volume of waste disposed, Mr. Franco said that 89,463 cubic meters is currently disposed of at WIPP, most of which is contact-handled waste. He added that 22 legacy TRU waste sites have been cleaned up thus far and that some of these facilities are still operating, so WIPP continues to provide the service of cleaning up newly generated waste as well.

Among the key developments Mr. Franco cited were the WIPP route change that cut out 190 miles of the route, creating both travel time and fuel savings. He also mentioned that the temporary Carlsbad route closure and change due to road resurfacing is now back in service, alleviating congestion. In other developments, salt disposal investigations were set up on the north end of the mine to come to conclusions about the use of salt formations for disposal of heat-generating nuclear waste. Depending on financing, field heater tests and post-test forensics will be accomplished in fiscal year 2015. Mr. Franco announced that WIPP received its seven hundredth shipment of remote-handled waste on September 12 of this year.

In terms of the framework agreement between the DOE and the state, which is to remove 3,706 cubic meters of surface TRU waste from Los Alamos National Laboratory (LANL) by June 2014, Mr. Franco indicated that all is on target for this agreement to be reached.

Mr. Sharif noted that all of these accomplishments have been achieved safely, with the operation logging in nearly five million safe-hours.

Questions and comments ensued and the following points were made:

- although WIPP began with Westinghouse as its managing contractor, Westinghouse has since gone through many permutations, including being partially owned by a foreign entity, which caused the loss of defense contracts at that time;
- WIPP cannot receive spent fuel rods as part of its waste stream without legislative changes to the federal WIPP Land Withdrawal Act, although the WIPP facilities were designed and built for high-level waste;
- the WIPP footprint is one square mile of the 16 square miles of available land at WIPP, and it is the DOE's assessment that there is no technical reason why WIPP cannot accept or expand to accept other waste;
- as a deep geological repository, WIPP buries waste 2,150 feet from the surface, whereas in shallow land burials, waste is buried at 70 feet; the depth of burial at WIPP is designed to store waste for a longer time period without water intrusion;
- the waste characterization process is thorough and involves a team of scientific-technical advisors and a review and reporting process, then approval by the state and the EPA;
- water in the area of WIPP is tested on a monthly basis, and WIPP's ground water plan is in accordance with NMED requirements;
- some forensic work could be done at the WIPP site to test an area for the effects on the salt after 20 to 30 years, as per the blue ribbon commission's recommendation;
- regarding the statutory end date for WIPP, the environmental impact statement done in the 1980s said that the pilot project was capable of running through 2030 with a shutdown through 2035, with the caveat that the secretary of energy had the discretion to make a decision on the project; it is the DOE's hope that WIPP operations could happen through 2055 or even longer;
- when WIPP was receiving federal stimulus funds, it could handle 35 shipments per week; at present funding levels, WIPP can handle 17 to 19 per week;
- once the 3706 campaign is completed at LANL, the DOE wants to continue removing below-ground TRU waste;
- from a national standpoint, New Mexico has some leverage to tell DOE to clean up the state first, then WIPP could be available for other cleanup ventures; and
- LANL has been the DOE's first priority for waste removal over the past three years; waste at LANL is characterized and certified on site, then shipped on to WIPP.

Adjournment

There being no further business, the committee adjourned at 2:48 p.m.